

ABSTRACT OF THE DISCLOSURE

The actuator has an outer housing, and a fluid muscle, normally pneumatic, mounted within the outer housing, defining an annulus between the fluid muscle and the outer housing. Fluid ports, i.e. normally air ports, are connected for separately pressurizing the fluid muscle and the annulus to a pressure above ambient pressure, whereby the fluid muscle can be caused to contract to produce actuation movement by releasing pressure from the annulus. In an exemplary embodiment, the actuator can be mounted to open and close a collet, but may have a wide variety of other uses.